

S/N 09/145,595

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT

Applicant: Ji Ung Lee

Examiner: Karabi Guharay

Serial No.: 09/145,595

Group Art Unit: 2879

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Docket: 303.537USTC

Title: FIELD EMISSION DEVICES HAVING STRUCTURE FOR REDUCED
EMITTER TIP TO GATE SPACING

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Commissioner for Patents
Washington, D.C. 20231

Applicant has reviewed the Office Action mailed on August 15, 2001. Please amend the above-identified patent application as follows.

IN THE CLAIMS

Please substitute the claim set in the appendix entitled Clean Version of Pending Claims for the previously pending claim set. The substitute claim set is intended to reflect amendment of previously pending claims 43, 47, 51-53, and 57. The specific amendments to individual claims are detailed in the following marked up set of claims.

43. (Amended) A flat panel display, comprising:

a field emitter array formed on a glass substrate, wherein the field emitter array includes:

a number of cathodes formed in rows along the substrate;

a gate insulator formed along the substrate and surrounding the cathodes;

a number of gate lines formed on the gate insulator; and

a number of anodes formed in columns orthogonal to and opposing the rows of cathodes, wherein the anodes include multiple phosphors, and wherein the intersection of the rows and columns form pixels, the field emitter array formed by a method comprising:

forming a number of cathode emitter tips in cathode regions of the substrate;

forming a gate insulator layer on the emitter tips and the substrate, wherein forming the gate insulator layer includes ion etching the insulator layer such that the insulator layer is formed thinner around the emitter tips than in an isolation region of the substrate;



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Handwritten notes: \$1516, 1/17/02, 1/17/02